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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,123

03/12/2004

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9095

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08/23/2007

EXAMINER

JACKSON, JAKIEDA R

ART UNIT

PAPER NUMBER

2626

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/800,123	<b>Applicant(s)</b> THWING, GARY	
	<b>Examiner</b> Jakieda R. Jackson	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 1, 11 and 21 are objected to because of the following informalities:

- “containing one a single” should be --containing one single-- or --containing a single--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-4, 6, 8-13, 15, 17-24, 26, 28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (USPN 5,995,928), hereinafter referenced as Nguyen in view of Mane et al. (USPN 7,242,758), hereinafter referenced as Mane and in further view of Swartz et al. (PGPUB 2006/0219780), hereinafter referenced as Swartz.

Regarding **claims 1, 11 and 21**, Nguyen discloses a machine-implemented caller interface method, medium and system hereinafter referenced as a method comprising:

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for each selected character, constructing a current potential match set of potential character string matches by (comparing)

appending one or more characters selected from a set of misrecognized characters (often confused) including the selected character to each potential character string match in a prior potential match set constructed for a preceding selected character (column 2, line 62 – column 3, line 57), if any, and

deleting from the current potential match set potential character string matches missing from a list of reference character strings (deletions; column 4, lines 27-46);

transmitting for presentation to a caller a reference data item corresponding to the potential character string match in a current potential match set containing a single potential character string match (best word) after non-matching potential character string matches have been deleted (rejected; column 13, lines 51-61), but does not specifically teach receiving a sequence of recognized characters beginning with a first recognized character and ending with a last recognized character and selecting successive characters one at a time from the recognized character sequence in order beginning with the first recognized character.

Mane teaches a method comprising:

receiving a sequence of recognized characters beginning with a first recognized character and ending with a last recognized character (spelling of the entire listing; column 9, lines 5-19);

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transmitting for presentation to a caller a reference data item corresponding to the potential character string match (match) in a current potential match set containing a single potential character string match after non-matching potential character string matches have been deleted (column 9, lines 5-19), to provide the most accurate response.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen's method as described above, to provide an automated directory assistance with minimum external or operator intervention (column 1, lines 53-67), as taught by Mane.

Nguyen in view of Mane disclose a speech recognition method, but does not specifically teach selecting successive characters one at a time from the recognized character sequence in order beginning with the first recognized character.

Swartz teaches a method comprising:

receiving a sequence of recognized characters beginning with a first recognized character and ending with a last recognized character (data completion entry; column 5, paragraph 0057);

selecting successive characters one at a time from the recognized character sequence in order beginning with the first recognized character ("sa", "sau", etc.; column 5, paragraph 0057); and

deleting from the current potential match set potential character string matches missing from a list of reference character strings (column 5, paragraph 0057), to provide an efficient information delivery system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Man's method as described above, to provide an efficient information delivery system that allows a customer to obtain the most accurate information.

Regarding **claims 2, and 22**, Nguyen discloses a method wherein the sequence of recognized characters is received from a speech recognition system (speech recognition engine; column 2, lines 62-67). In addition, Mane teaches a speech recognition system (column 2, lines 63-67).

Regarding **claims 3, 12 and 23**, Nguyen discloses a method further comprising transmitting to the speech recognition system a grammar identifying characters to be recognized (grammar rules; column 14, lines 6-34).

Regarding **claims 4, 13 and 24**, Nguyen discloses a method wherein each misrecognized character set contains at least one character likely to be misrecognized (misrecognition) for the corresponding selected character by a speech recognition system (column 2, line 62 – column 3, line 57).

Regarding **claims 6, 15 and 26**, Nguyen discloses a speech recognition method, but does not specifically teach wherein the misrecognized character sets and the reference character strings are stored in a single document file.

Mane teaches a method wherein the misrecognized character sets and the reference character strings are stored in a single document file (database; column 3, lines 25-40), to store information relating to a particular subject matter.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen's method wherein the

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misrecognized character sets and the reference character strings are stored in a single document file, as taught by Mane, so that the need for an operator intervention can be kept to a minimum and the user's request can be processed efficiently (column 3, lines 25-40).

Regarding **claims 8, 17 and 28**, Nguyen discloses a speech recognition method, but does not specifically teach a method further comprising transmitting for presentation to the caller reference data items corresponding to the potential character string matches in the current potential match set constructed after all recognized characters in the sequence have been selected.

Mane teaches a method further comprising transmitting for presentation to the caller reference data items corresponding to the potential character string matches (matched) in the current potential match set constructed after all recognized characters in the sequence have been selected (entirely; column 9, lines 5-19), to provide the most accurate response.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen's method as described above, to provide an automated directory assistance with minimum external or operator intervention (column 1, lines 53-67), as taught by Mane.

Regarding **claims 9, 18 and 29**, Nguyen discloses a method further comprising transmitting to the caller a message prompting the caller to spell at least a portion of an identifier of a requested reference data item (spell; column 13, lines 51-61). In addition, Mane teaches a method further comprising

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transmitting to the caller a message prompting the caller to spell at least a portion of an identifier of a requested reference data item (spell; column 9, lines 5-21).

Regarding **claims 10, 19 and 30**, Nguyen discloses a method wherein after all recognized characters in the sequence have been selected and multiple potential character string matches remain in the current potential match set (identifies the best choice), further comprising transmitting to the caller a message prompting the caller to spell an additional portion of the identifier of the requested data item (spell; column 13, lines 51-61). In addition, Mane teaches a method wherein after all recognized characters in the sequence have been selected and multiple potential character string matches (matcher) remain in the current potential match set, further comprising transmitting to the caller a message prompting the caller to spell an additional portion of the identifier of the requested data item (request for additional information; column 4, lines 34-47).

4. **Claims 5, 7, 14, 16, 25 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen in view of Mane and Swartz and in further view of Green (USPN 6,741,985).

Regarding **claims 5, 14 and 25**, Nguyen in view of Mane and Swartz discloses a speech recognition method, but does not specifically teach wherein deleting comprises comparing potential character string matches and reference character strings of equal character length.



Green discloses a method wherein deleting comprises comparing potential character string matches and reference character strings of equal character length (same character set (length; column 3, line 56 - 2, line 30 with column 5, lines 53-66), to reduce the target set.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Mane and Swartz method as described above, so that it could result in a high probability that any word remaining in the refined target set is a closed match for the search string (column 2, lines 14-31).

Regarding **claims 7, 16 and 27** Nguyen in view of Mane and Swartz discloses a speech recognition method, but does not specifically teach wherein each list includes a respective table containing reference character strings of equal character length, and different tables contain reference character strings of different respective character length.

Green discloses a method wherein each list includes a respective table containing reference character strings of equal character length, and different tables contain reference character strings of different respective character length (different length; column 3, line 56 - 2, line 30 with column 5, lines 53-66), to reduce the target set.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Mane and Swartz method as described above, to allow quick identification of a set of word numbers

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that represent words with the same starting character but different lengths (column 5, lines 53-66).

5. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen in view of Mane and Swartz and in further view of Wang et al. (PGPUB 2002/0174147), hereinafter referenced as Wang.

Regarding **claim 20**, Nguyen in view of Mane and Swartz discloses a speech recognition medium, but does not specifically teach wherein the machine-readable instructions are implemented in a voice-based extensible markup language.

Wang teaches a medium wherein the machine-readable instructions are implemented in a voice-based extensible markup language (VoiceXML: column 3, paragraph 0041), to provide automatic transformation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nguyen in view of Mane and Swartz medium as described above, to facilitate a more understandable and controllable experience for individuals who access the content for either auditory or a primarily auditory with visual format (column 1, paragraphs 0006-0007).

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**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jakieda R. Jackson whose telephone number is 571-272-7619. The examiner can normally be reached on Monday-Friday from 5:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRJ  
August 17, 2007



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